

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group

Art Unit:

1771

Attorney

Docket No.:

SHC0029

Applicant:

Toshio KABAYASHI et al.

Invention:

NONWOVEN FABRIC AND METHOD FOR

MAKING THE SAME

Serial No:

09/220,223

Filed:

December 23, 1998

Examiner:

Elizabeth M. Cole

Certificate Under 37 CFR 1.8(a)

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on May 22, 2001

Aichael S. Grubowski

REQUEST FOR RECONSIDERATION

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

The Official Action of January 30, 2001 has been thoroughly studied. Accordingly, the following remarks are believed to be sufficient to place the application into condition for allowance.

Claims 1-3 and 6-8 are pending in this application.

Claims 1-3 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,100,324 to Anderson et al.

Claims 6-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Anderson et al.

For the reasons set forth below, it is respectfully submitted that all of the pending claims are allowable over the prior art relied upon in the Official Action and therefore, each of the outstanding rejections should properly be withdrawn.

Favorable reconsideration by the Examiner is respectfully requested.

The Examiner has relied upon Anderson et al. as disclosing a nonwoven fabric comprising meltblown microfibers, and a pulp material.

The Examiner states that:

The nonwoven may be embossed, which would form protuberances that project from the surface of the sheet.

Applicants' independent claim requires a nonwoven fabric and further requires that: "...said fabric being in the form of a sheet having a plurality of protuberances that project from a surface of the sheet."

As conceded by the Examiner, Anderson et al. teaches embossing. In fact, Anderson at al. teaches a composite web that may be embossed either ultrasonically or at an elevated temperature so that the thermoplastic microfibers are flattened into a film-like structure.

The Examiner has taken the position that Anderson et al.'s embossing technique "would form protuberances that project from the surface of the sheet."

The Examiner's statement and position are both in error, because embossing does not necessarily form protuberances. While it is true that, in at least one embodiment, applicants incorporate an embossing technique that forms protuberances, Anderson et al. specifically teaches an embossing technique that form "flattened" areas in the composite web. In this regard, the

embossing technique of Anderson et al. incorporates the use of an anvil and further uses heating and press to compress and deform portions of the composite web into "flattened" areas.

Thus while it is true that some embossing processes can be used to form protuberances, it is not at all true that the embossing techniques taught or used by Anderson et al. "would form protuberances that project from the surface of the sheet" as the Examiner asserts.

It is applicant's position that the formation of protuberances is completely opposite to embossing techniques that use anvils and form flattened portions in a composite web.

By definition, a "protuberance" is something that is protuberant. "Protuberant" is defined as thrusting out from a surrounding or adjacent surface often as a rounded mass. (See Webster's New Collegiate Dictionary, G. & C. Merriam Co, 1981, copy attached).

As disclosed in applicants' specification on page 7, embossing rolls having projections thereon are used to form the protuberances shown in Fig. 2. On page 8 there is an embodiment of the invention disclosed that utilizes water jets to force the nonwoven web against projections on drum 230 (See Fig. 4) to form protuberances.

In Anderson et al., rather than forming protuberances, portions of the composition web are "flattened" as depicted in Figs. 3 and 4. These flattened areas are produced using a patterned anvil roll while heating the composite web.

The use of an anvil roll and the flattening of areas of the composite web are completely different from the manner which applicants form protuberances according to their invention.

While it is understood that during the examination of the claims in a patent application, an Examiner is permitted to read the scope of the claims broadly when applying prior art teachings, the Examiner has to give terms in a claim their common meaning which would be understood by those skilled in the art.

In this present instance, it is clear that Anderson et al. does not provide a sheet having a plurality of protuberances that project from a surface of the sheet, but rather a nonwoven web that has a plurality of flattened areas therein. These structures are not the same, and therefore Anderson et al. does not anticipate applicants' claimed invention.

The Examiner has attempted to reference the non-flattened portions of Anderson et al. with the flattened portions by construing the flattened portions as defining a surface of the composite web, and thus the non-flattened portions as being protuberances.

This manner of construing Anderson et al. is contrary to the teaching of the reference as can be appreciated by Anderson et al.'s specific reference to "flattened" areas. That is, the flattened areas have to be flattened with reference to the non-embossed portions of the composite web, so that the non-embossed portions of the composite web cannot be construed as protuberances that are provided or formed in the composite web.

Obviousness under the statute (quoted on page 2 of the Official Action) requires that: "...the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art...." (underlying added).

Those skilled in the art would readily distinguish between protuberances and flattened embossed areas both on a structural basis and on the differences in which these structures are formed. Accordingly, one skilled in the art would not find applicants' claimed invention obvious over the teachings of Anderson et al.

In Anderson et al. the flattened areas are provided in order to improve the strength of the web as discussed at column 6, lines 46-51.

As the Examiner will appreciate upon reviewing the pending claims and applicants' specification, the present invention is, in part, concerned with providing a nonwoven fabric in which the individual fibers thereof can be rearranged around the protuberances. Applicants' invention accordingly utilizes a particular combination of thermoplastic synthetic fibers and pulp fibers which allows the protuberances to be formed so that the fibers can be easily arranged around the protuberances.

There is no similarity between Anderson et al.' use of flattened areas to improve the strength of the composite web, and applicants' manner of providing a nonwoven sheet in which the fibers thereof can be easily arranged around the protuberances formed therein.

Accordingly, the teachings of Anderson regarding the flattened areas is not at all relevant to applicants' claimed protuberances.

Thus, Anderson et al. does not anticipate nor otherwise render applicants' claimed invention obvious under the statute.

Based upon the above distinctions between Anderson et al. and the present invention, and the overall teachings of Anderson et al. properly considered as a whole, it is respectfully submitted that the Examiner cannot properly rely upon Anderson et al. reference as required under 35 U.S.C. §102 to show anticipation of applicants' claimed invention. Moreover, it is submitted that the Examiner cannot properly rely upon Anderson et al. as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon Anderson et al. would be improper

inasmuch as this reference does not remotely anticipate, teach, suggest or render obvious the present

invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly

show that the claimed invention is novel and neither anticipated nor obvious over the teachings of

Anderson et al. and the outstanding rejections should hence be withdrawn.

Therefore, reconsideration of the outstanding rejections and an early allowance of the claims

is believed to be in order.

It is believed that the above represents a complete response to the Official Action and

reconsideration is requested.

If upon consideration of the above, the Examiner should feel that there remains outstanding

issues in the present application that could be resolved, the Examiner is invited to contact applicants'

patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby

made. Please charge the fees due in connection with the filing of this paper, including extension of

time fees, to Deposit Account No. 02-0385 and please credit any excess fees to such deposit account.

Respectfully submitted,

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